HP Integrity Support Pack and Deployment Utilities User Guide

May 2004 (First Edition)
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About This Guide

This user guide is designed as a reference for implementing and using the Integrity Support Pack (ISP) deployment utilities for Microsoft® Windows Server 2003 64-bit server environments.

Audience Assumptions

Because of the potential risk of data loss, the ISP deployment utilities should be used only by individuals who are experienced and knowledgeable in the use of such utilities.

Where to Go for Additional Help

In addition to this guide, the following information sources are available:

Reference Documentation

For information about HP Subscriber's Choice, refer to:
http://www.hp.com/go/subscriberschoice.

For information about the Integrity Essentials Rapid Deployment Pack, refer to:
http://www.hp.com/servers/rdp.

NOTE: The HP Integrity Support pack and its components are derived from the ProLiant Support pack model. Therefore, even though some of the website addresses and Figures shown in this document refer specifically to ProLiant components, they apply to Integrity components as well.

Operating System Information

For information about Microsoft Windows operating systems, refer to:
http://www.microsoft.com.

Telephone Numbers

For the name of your nearest HP authorized reseller:

- In the United States, call 1-800-345-1518.
- In Canada, call 1-800-263-5868.

For HP technical support:

- In the United States and Canada, call 1-800-652-6672.
- Outside the United States and Canada, refer to: http://www.hp.com.

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Introduction

Each ISP consists of a deployment utility and setup and software maintenance tools designed to provide an efficient way to manage routine software maintenance tasks. These tools include ISP deployment utilities for Microsoft Windows Server 2003 64-bit server environments.

ISPs and the ISP deployment utilities integrate with other software maintenance, deployment, and operating system tools, providing the information and flexibility needed to efficiently install, upgrade, and manage system software and reduce server maintenance costs.

ISP Deployment Scenarios

The ISP deployment scenarios discussed in this guide are summarized as follows:

- Graphical deployment on a single-target system using the Remote Deployment Utility
- Command line deployment on a single-target system using the Remote Deployment Console Utility
- Command line deployment on multiple-target systems using the Remote Deployment Console Utility
- Command line deployment on multiple-target systems managed by HP Systems Insight Manager

This guide also describes additional functionality of the ISP deployment utilities and individual support software components, including several deployment script file examples that can be modified to fit specific Windows Server 2003 64-bit server environments.

NOTE: If you install an ISP and then install an operating system Service Pack, a Support Pack, or other operating system updates, HP recommends reinstalling the ISP.

Benefits of the ISP Deployment Utilities

The improved software features of the ISP deployment utilities make software maintenance easier by:

- Increasing server manageability
- Enabling administrators to update systems remotely
- Reducing server maintenance costs
- Saving time

The ISP deployment utilities provide the following software maintenance benefits to system administrators:

- Self-installable components with easy-to-understand software update descriptions
- Components that can be installed individually or as part of a Support Pack
- Installation logic and version control that automatically checks for hardware, software, firmware, and operating system dependencies, installing only the correct software updates and latest drivers for optimal system configuration
- Silent command line options and return codes that enable scripting and enhanced integration of the ISP deployment utilities with HP Systems Insight Manager.
- Integration with preconfigured server script files as part of the Rapid Deployment Pack
- Common log files that provide easy access to a consolidated view of software installation history on target servers
- Content in ready-to-run native operating system file formats that save time by installing directly from a CD or shared network drive

By following the procedures described in this guide, the scalability of the ISP deployment utilities is enhanced to support high-volume maintenance and deployment of software upgrades.

CAUTION: The ISP deployment utilities, ISPs, and individual components should be used only by individuals who are experienced and knowledgeable in the use of such software components. Before using these utilities, ISPs, and components to deploy a server or maintain software components, be sure to make a backup of the data on the target server and take all other necessary precautions so that mission-critical systems are not disrupted if a failure occurs.

Obtaining the ISP Deployment Utilities

You can obtain the ISP deployment utilities from the HP website or HP CD media.

HP Website

The latest ISP deployment utilities, ISPs, and individual components for supported Microsoft Windows operating systems are available at: http://www.hp.com/support/files.

HP CD Media

When Web access is not available or download speeds are too slow, ISP deployment utilities, ISPs, and individual components can also be obtained from:

- The Integrity Software Maintenance CD
- The Smart Setup CD 3.xx or later for Windows

Updating the ISP Deployment Utilities

HP Subscriber's Choice and HP version control tools can help you be sure that you have the most current ISP deployment utilities, ISPs, and individual components.

HP Subscriber's Choice

Keep actively informed of new releases of Smart Setup and other Foundation Pack software with email alerts from Subscriber's Choice. Subscriber's Choice uses a secure website to proactively communicate product changes and Customer Advisories through e-mail to registered customers based on a customer-provided profile. Register for this free service at: www.hp.com/go/subscriberschoice.

Version Control

The Version Control Repository Manager and Version Control Agent are Web-enabled Insight Management Agents. HP Systems Insight Manager uses these Insight Management Agents to facilitate software update tasks. The Version Control Agent can be configured to point to a repository being managed by the Version Control Repository Manager, allowing easy version comparison and software update. For more information about version control tools, refer to:

- The *HP Systems Insight Manager Help Guide* at: http://h18013.www1.hp.com/products/servers/management/hpsim/infolibrary.html

Creating a Centralized, Network-Based Software Repository

The practice of deploying ISPs and individual components from a centralized, network-based software repository saves time and standardizes software maintenance and deployment procedures.

For maximum flexibility across operating system platforms, the software repository must be on a Windows shared network drive. The repository can be updated in any of the ways shown in Figure 1-1.

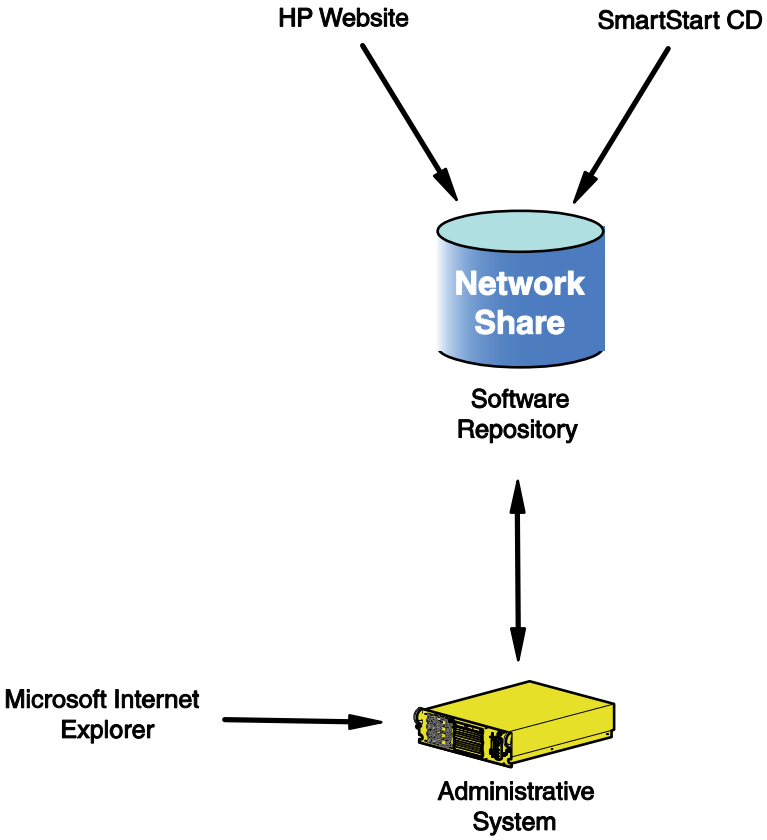

Figure 1-1: Sources for updating the network-based software repository

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Deploying Integrity Support Packs in Microsoft Windows

This chapter discusses how to use ISPs for Microsoft Windows. HP provides the following tools for configuring components and deploying ISPs for Windows:

- Remote Deployment Utility for Microsoft Windows
- Remote Deployment Console Utility for Microsoft Windows

Several usage scenarios are provided as examples at the end of this chapter.

Overview

ISPs are operating system-specific bundles of HP server support software. Each ISP includes multiple self-installable components known as Smart Components (optimized drivers, management agents, and utilities). This ISP design improves and simplifies operating system integration, flexibility, and system configuration.

HP recommends the following procedure when working with ISPs:

1. Obtain the ISP, and place it on a software repository or other medium.

   IMPORTANT: HP recommends that the ISP files are present on a non-read-only medium so that the various Smart Components in the ISP can be configured before deployment. For example, the Support Packs and components cannot be configured when they are on a CD-ROM.

2. Be sure the Smart Components do not have the read-only attributes set.

   IMPORTANT: When a Smart Component is copied from the Smart Setup or Software Maintenance CD, the read-only attribute is set by default. Use Microsoft Windows Explorer or the `attrib` command to remove the read-only attributes of Smart Components copied from a Smart Setup or Software Maintenance CD.

3. Configure the components using the configuration functionality in the Remote Deployment Utility for Windows.

   NOTE: Components must be configured only once. The configuration information is stored inside each Smart Component so that it is available when the component is installed. You do not need to configure components each time they are deployed. However, configuration is independent of the target computer you select. If you change the configuration of a component after deployment, you must redeploy the component.

4. Deploy the ISP, using a deployment tool such as the Remote Deployment Utility for Windows or the Remote Deployment Console Utility for Windows.

   NOTE: Smart Components can also be installed individually. For more information, refer to the "Installing Single Components" section in this chapter.

Minimum Requirements for Windows Servers

IMPORTANT: Before deploying software updates on a target system, be sure that a recent backup of the target system is available in the event the deployment procedure fails.

For successful component deployments on Windows-based target systems, the following minimum requirements must be met:

- A local administrative system with Windows Server 2003 must be available.
- One or more remote target servers running Windows Server 2003 in need of a software upgrade must be available. If the local administrative system is the only server that must be upgraded, remote target servers are not necessary.
- Sufficient hard drive space must be available on the target system. As a standard practice, sufficient hard drive space equals at least twice the file size of the ISP or individual components to be deployed.
- All remote target servers must be connected to the same network and use TCP/IP to enable the systems to be seen from the administrative system.
- There must be an account with administrator privileges on each target server. It is recommended that the user name and password for the administrator account on each target server are the same as on the local administrative system. If administrator privileges are not set up in this way, you must have the user name and password for each remote server.

  Alternatively, you can use a domain account on the local administrative system that has administrator privileges on the target servers.

To run the Remote Deployment Utility, the local administrative system must be running:

- Microsoft Internet Explorer 5.5 or later
- Microsoft XML Parser 3.0 or later

  NOTE: If you obtain the Support Pack from a Smart Setup CD, a Software Maintenance CD, or the HP website, the appropriate version of the Microsoft XML Parser is stored in the `msxml3.cab` file. The Remote Deployment Utility automatically installs the parser if it is not currently present on your system. A supported version of the Microsoft XML Parser is also available as part of Internet Explorer 6.0.

Remote Deployment Utility for Microsoft Windows

HP has developed the Remote Deployment Utility (RDU) for Windows as a graphical application that provides enhanced ISP deployment capabilities. Using a point-and-click interface, the utility enables you to deploy and maintain ISPs and Smart Components on a local server or remote server accessible over a network connection.

NOTE: The RDU is located with the rest of the Support Pack contents on the Integrity Software Maintenance CD and in the \Contents\Supportpack subdirectory on the Smart Setup CD. The executable file that launches the utility is SETUP.EXE.

In most instances, installing a Support Pack with the RDU is a simple three-step process:

1. Select a target machine in the Target Machine toolbar.
2. Select a Support Pack from the dropdown menu on the Support Pack Selected for Installation toolbar.
3. Click **Install** on the Target Machine toolbar, and follow the instructions that appear.

IMPORTANT: Be sure that all components that require configuration are configured before deploying them.

For more information on deploying components and Support Packs, refer to the following sections.

Main Window

When the RDU is launched, a main control window similar to Figure 2-1 appears.

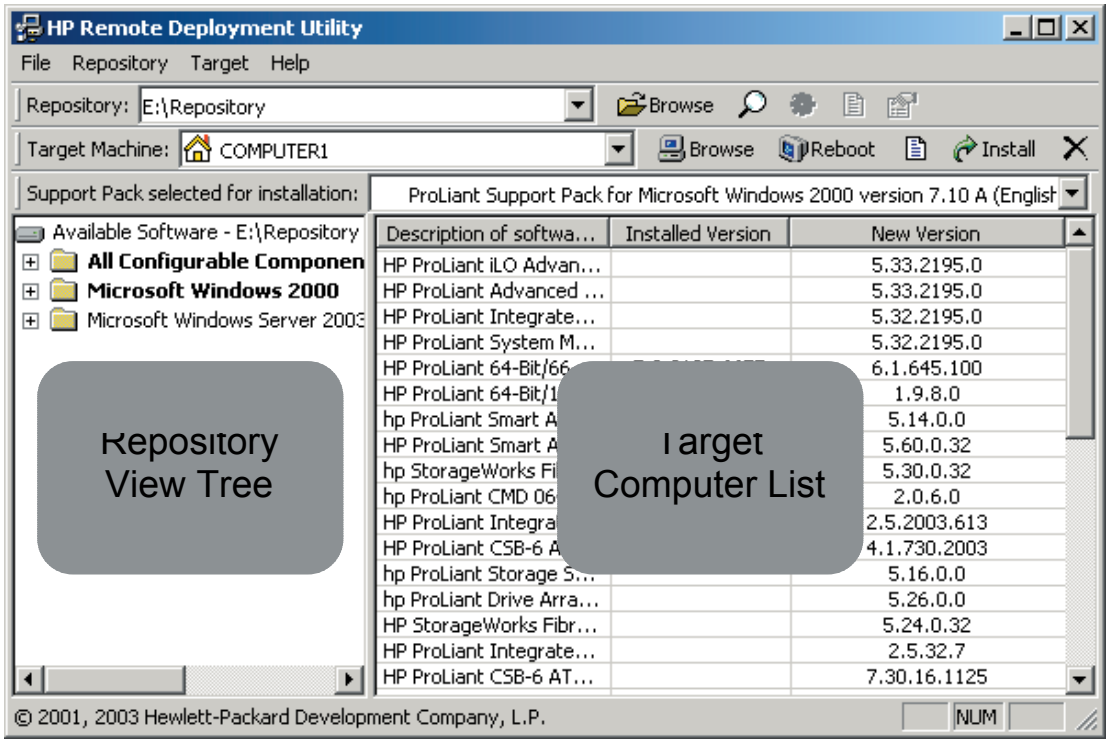

Figure 2-1: Remote Deployment Utility main control window

After startup, the RDU automatically selects the latest applicable Support Pack for the operating system of the target computer if one exists in the repository.

NOTE: When selecting a new target computer, the RDU does not automatically select the latest applicable Support Pack for the new target computer. The previous contents of the target computer list are preserved.

The main window consists of the following elements:

- Menu bar
- Repository toolbar
- Target Machine toolbar
- Support Pack Selected for Installation toolbar
- Repository view tree
- Target computer list

The following sections describe each element of the main window in more detail.

Menu Bar

The menu bar consists of the following menu items:

- The File menu item enables you to exit the RDU.
- The Repository menu item provides options for browsing to the software repository and configuring and viewing details about ISPs and components.
- The Target menu item provides options for setting or rebooting the target machine and installing components.
- The Help menu item provides access to help files about the RDU.

Repository Toolbar

The Repository toolbar contains the Repository field, which enables you to enter the path to the software repository where the ISPs and other Smart Components are located.

NOTE: The Repository field defaults to the directory containing the RDU.

The toolbar also contains the following buttons.

Table 2-1: Repository Toolbar Buttons

Icon	Description
	Enables you to browse the network for the repository
	Rescans the repository for any changes that might have occurred since the previous scan and then repopulates the repository view tree
	Configures the selected repository item
	Displays the revision history for the selected repository item
	Displays the properties of the selected repository item

Target Machine Toolbar

The Target Machine toolbar contains the Target Machine field, which enables you to enter the path to the target server on which the ISP and other Smart Components will be deployed. The Target Machine field defaults to the name of the server that launches the RDU. If you are deploying to a remote server, change the Target Machine field to the remote server name.

The toolbar also contains the following buttons.

Table 2-2: Target Machine Toolbar Buttons

Icon	Description
	Enables you to browse the network for the target machine
	Reboots the target machine
	Displays the target installation log file
	Deploys the selected components or ISPs on the target machine
	Deletes selected components from the target computer list

Support Pack Selected for Installation Toolbar

The Support Pack Selected for Installation toolbar consists of a dropdown list that contains all available ISPs in the current repository that are applicable to the target machine.

Selecting a Support Pack from the dropdown list clears the current contents of the target computer list and populates the list with all components contained in that Support Pack.

Repository View Tree

The repository view tree is the pane on the left side of the main RDU window, as shown in Figure 2-1.

The repository view tree displays a categorized view of all Support Packs and Smart Components contained in the selected software repository. The Support Packs and components are sorted, with the most recent version listed first. The tree has three levels:

- **Operating system level**—If the repository contains Support Packs or components for multiple operating systems, the repository view tree shows a folder for each one. The All Configurable Components folder, which contains all the components that require or support configuration, is also at this level.

  TIP: The folder for the operating system that is applicable to the target machine is in **bold** text. The All Configurable Components folder is in **bold** text when it contains a component that requires configuration.

- **Category level**—This level contains folders of Smart Components grouped by categories (such as Network, Management Agents, or Storage). A Support Pack folder that contains all Support Packs is also available at this level.
- **Component level**—The individual Smart Components reside at this level. Refer to the following table for descriptions of the icons for each component.

Table 2-3: Component Configuration Icons

Icon	Description
	The component requires configuration but has not yet been configured.
	The component is configurable but has not yet been configured.
	The component is configurable and has been configured.
	The component does not require configuration.

Folders or files at any level in the repository view tree can be added to the target computer list by any of the following methods:

- Drag selected items or folders from the repository view tree, and drop them in the target computer list. The items are added to the end of the list.
- Select an item or folder in the repository view tree, then press the **Insert** key. The item is added to the end of the list.

Target Computer List

The target computer list is the pane on the right side of the main RDU window, as shown in Figure 2-1.

The target computer list contains all components that have been selected for installation on the target computer.

This panel has three columns:

- The Description of Software to be Installed column lists the names of components selected for installation.
- The Installed Version column indicates the version number of any components that are currently installed on the target machine.
- The New Version column lists the version number of the components from the software repository that have been selected for installation.

Items can be added to the target computer list by any of the following methods:

- Select a Support Pack from the Support Pack Selected for Installation toolbar to add all components in the Support Pack to the target computer list.
- Drag selected items or folders from the repository view tree and drop them in the target computer list. The items are added to the end of the list.
- Select an item or folder in the repository view tree, then press the **Insert** key. The item is added to the end of the list.

Items can be removed from the target computer list in either of the following ways:

- Click the **Remove selected items chosen for installation** button on the Target Machine toolbar to remove selected items from the target computer list.
- Select the items to be removed, then press the **Delete** key.

NOTE: The target computer list supports multiple selections using the mouse. Multiple items can be selected using the standard Windows combinations of Ctrl+click or Shift+click.

Revision History and Properties

The Revision History and Properties options enable you to view additional information about a component or ISP in the repository view tree.

To view the revision history for a component, right-click the component and select **View Revision History,** or click the revision history icon ( ) on the Repository toolbar. A sample revision history is shown in Figure 2-2. The revision history provides details about software enhancements and fixes.

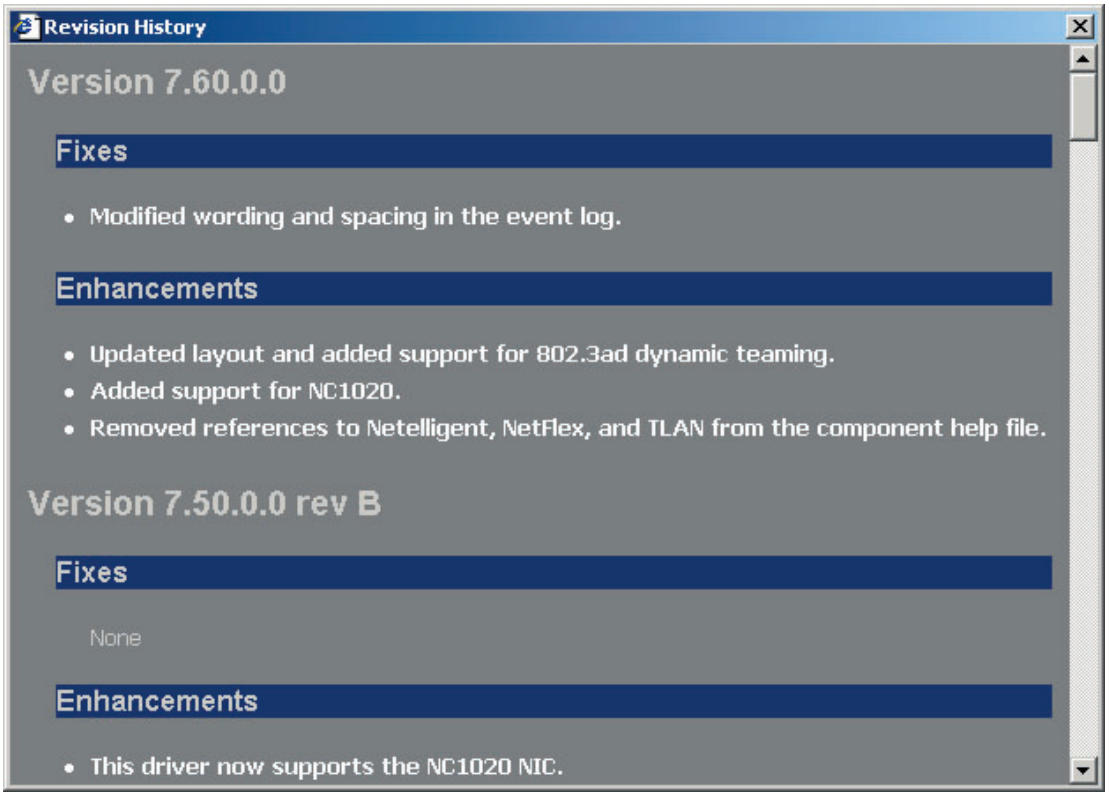

Figure 2-2: Sample revision history

To view the properties of a component, right-click the component and select **Properties,** or click the properties icon () on the Repository toolbar. The Properties window displays the properties of the component or ISP, including file name, version number, and operating system information. A sample Properties window is shown in Figure 2-3.

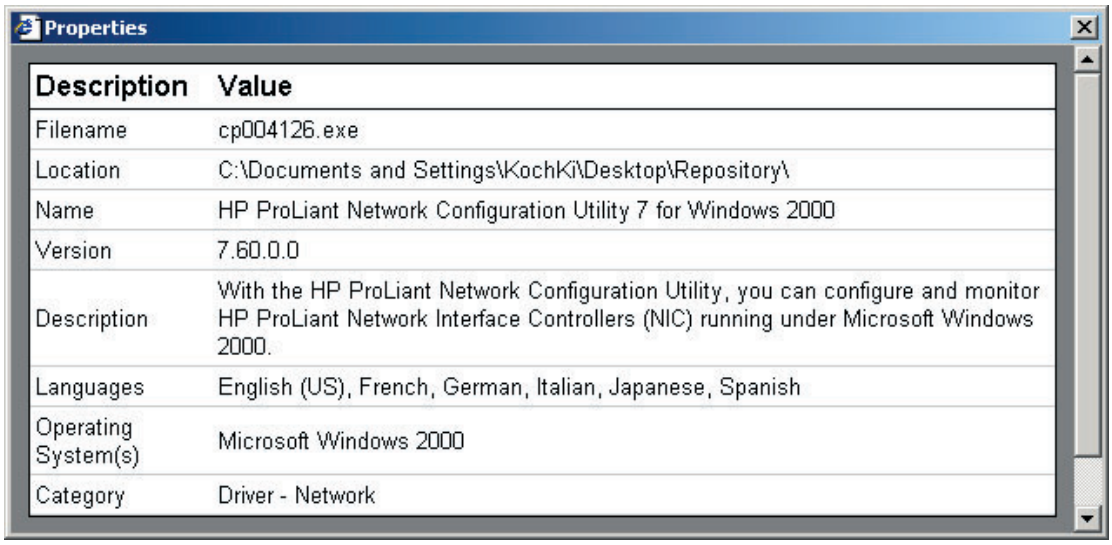

Figure 2-3: Sample properties

Component Preconfiguration

Some of the Smart Components included as part of an ISP must be configured before being deployed. If any components require configuration, the All Configurable Components folder in the repository view tree appears in **bold** text.

IMPORTANT: Components must be configured only once. The configuration information is stored inside each Smart Component so that it is available when the component is installed. You do not need to configure components each time they are deployed. However, configuration is independent of the target computer you select. If you change the configuration of a component after deployment, you must redeploy the component.

Icons next to each component in the repository view tree indicate whether the component must be configured. Refer to Table 2-3 for descriptions of each of the icons. Configurable components include, but are not limited to, the following:

- HP Insight Management Agents
- Version Control Agent

IMPORTANT: The Web-based Management portion of the Insight Management Agents requires that a user ID, password, and trust level be configured in the Smart Component before installation if this is the first time the agents are being installed. If the agents are being updated and are already configured on the target system, the new agent component does not need to be configured before being deployed. For more information, refer to the *HP Systems Insight Manager Installation and User Guide* on the HP website at: http://h18013.www1.hp.com/products/servers/management/hpsim/infolibrary.html.

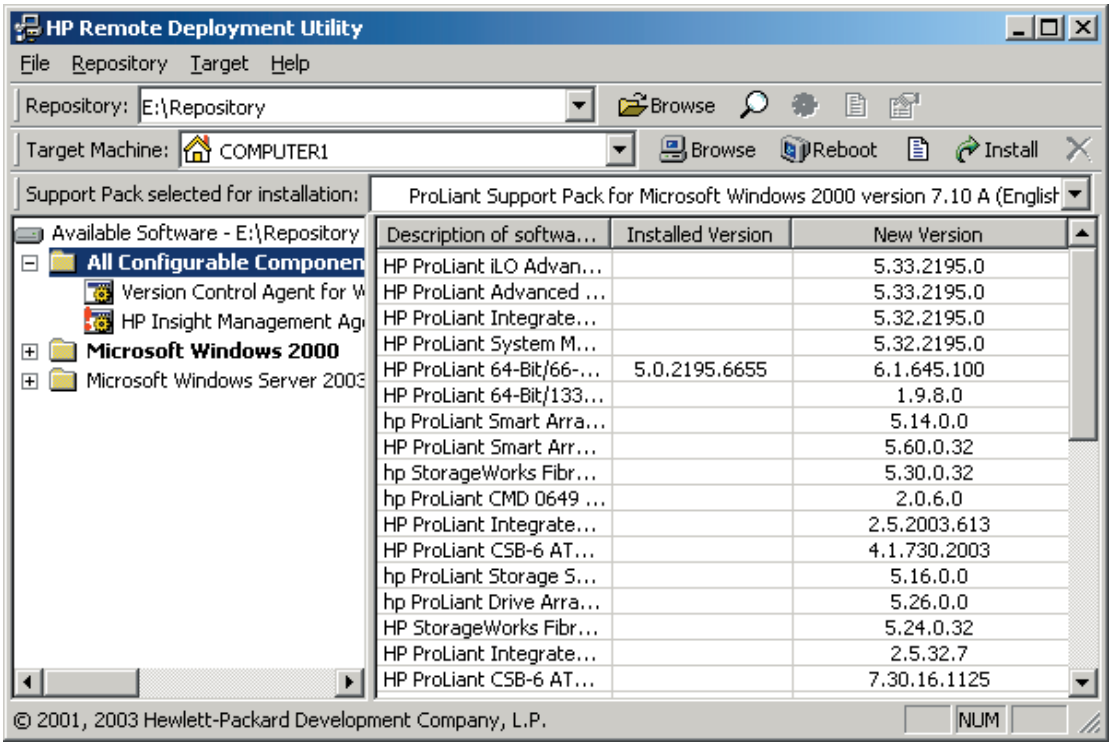

Figure 2-4: Configurable components in the RDU

To configure a Smart Component:

1. Select a component in the repository view tree.
2. Select **Repository>Configure** from the menu bar, or right-click the component and select **Configure.** The configuration information screen for the selected component appears. An example is shown in Figure 2-5.

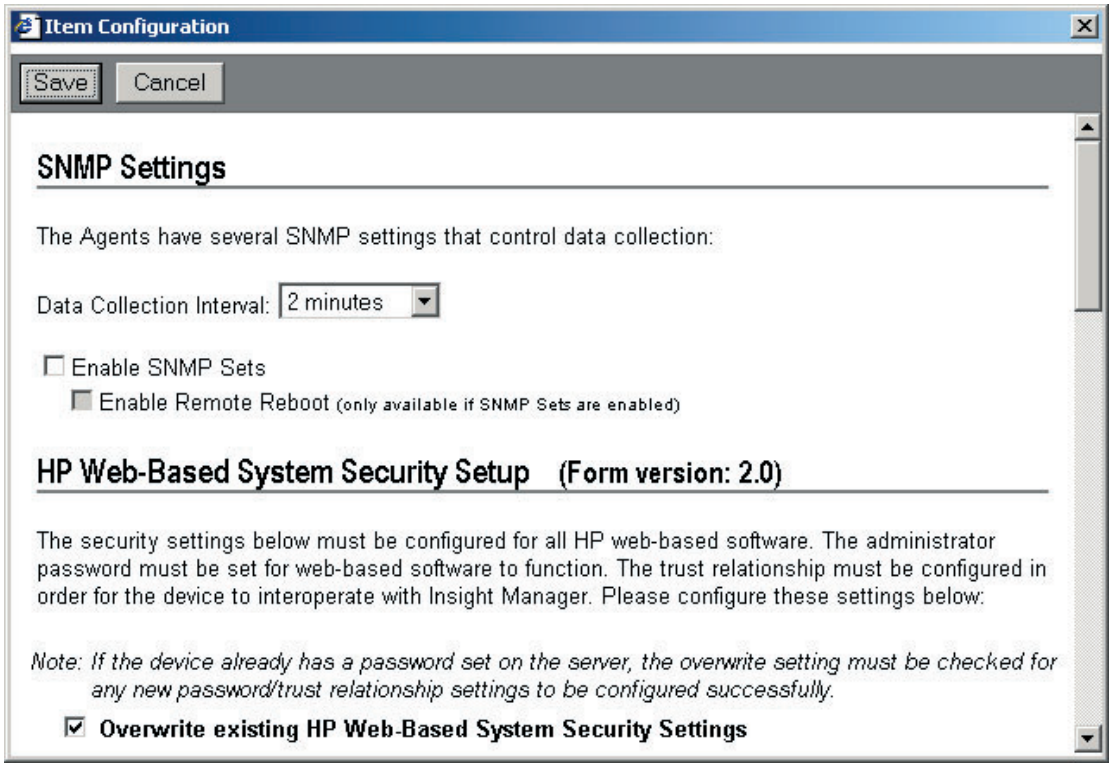

Figure 2-5: Sample component configuration settings

3. From the component configuration screen, set the configuration features that you want and click **Save.** To return to the component list without saving, click **Cancel.**
4. After the configuration is saved, the main window appears again. If the configuration operation is not successful, an error message appears.

Deploying Components or ISPs

The RDU allows local and remote non-scripted deployments only.

To deploy Smart Components or ISPs:

1. Select the components to be installed by dragging them from the repository view tree into the target computer list or by selecting an ISP from the Support Pack Selected for Installation dropdown list.
2. Click **Install** on the Target Machine toolbar. The following screen appears.

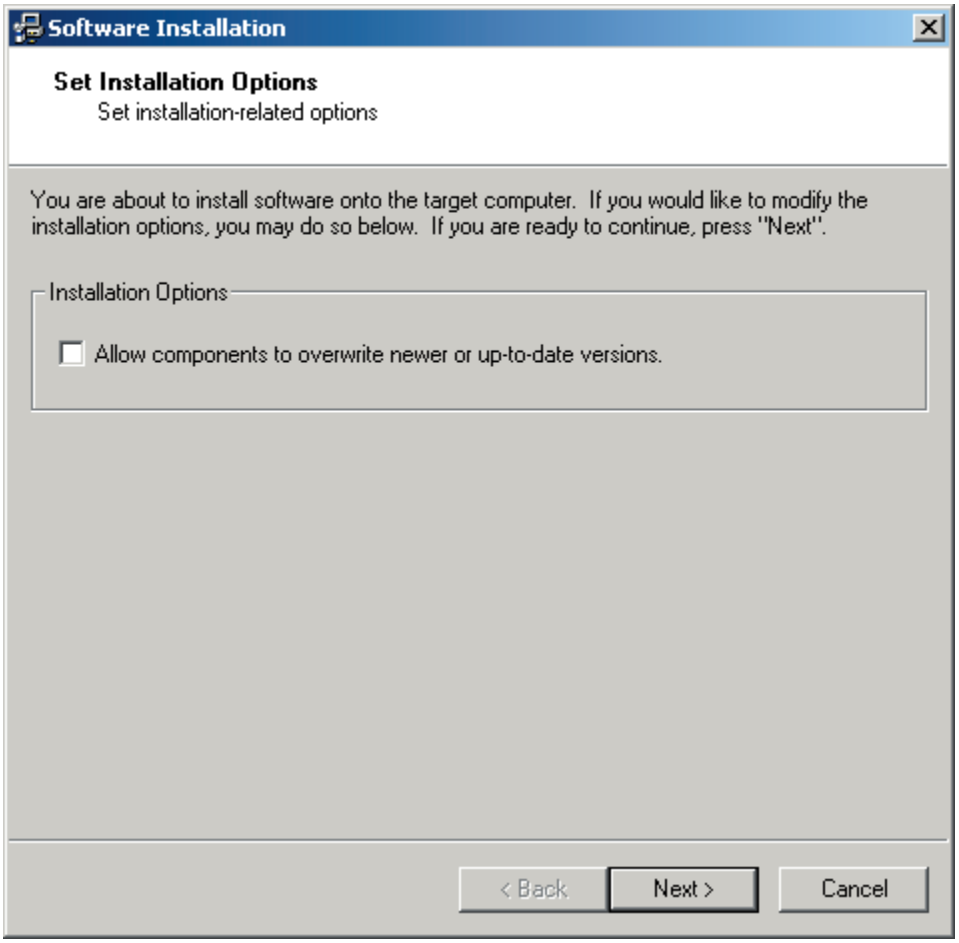

Figure 2-6: Software installation confirmation

3. Modify the installation options, if desired, and click **Next.** A confirmation screen appears.
4. Click **Next** to begin the installation. An installation progress window appears.

Installation Results

After deploying the ISP on the target server, the RDU displays an installation confirmation screen. Click **Finish** to exit.

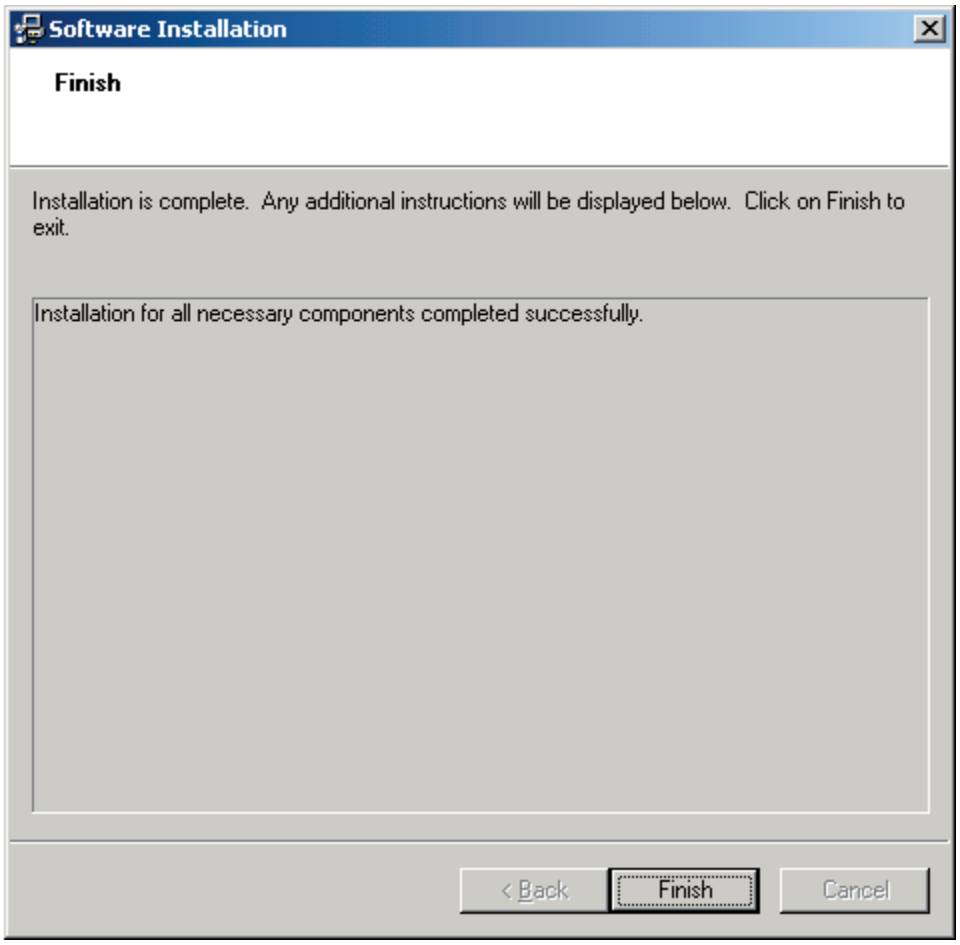

Figure 2-7: Installation confirmation

If one or more components are not installed successfully, a screen similar to the following appears.

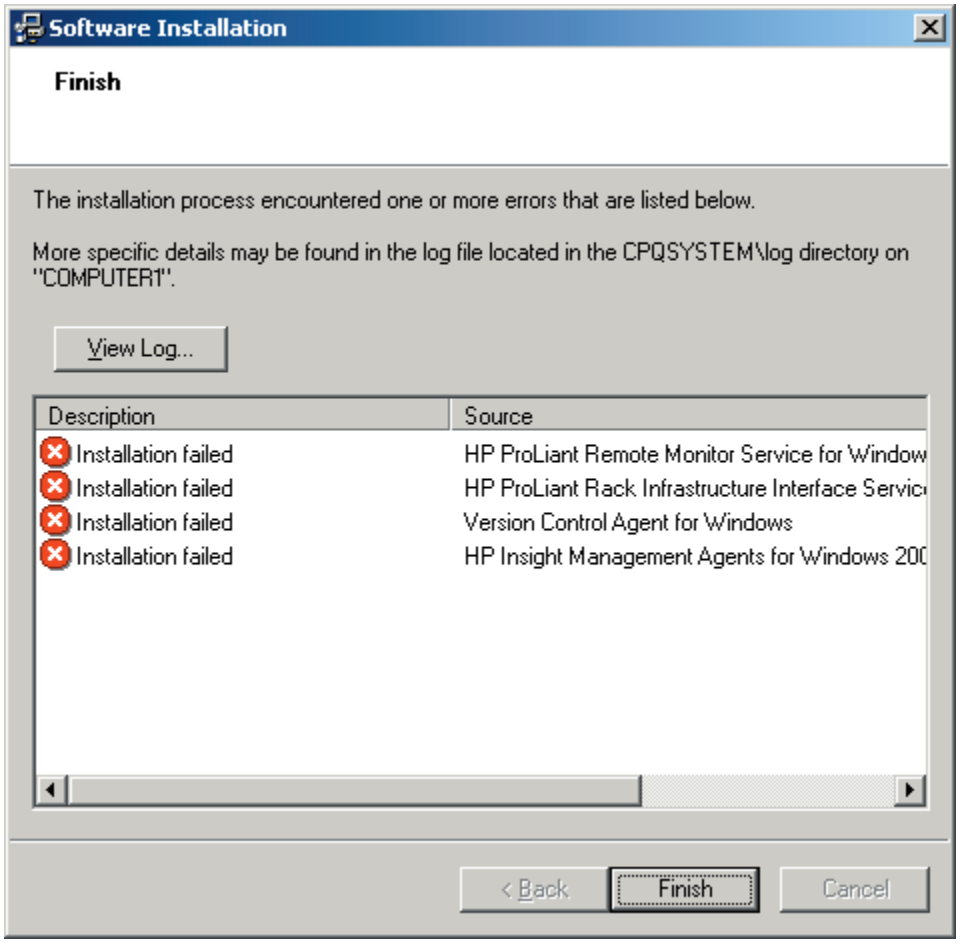

Figure 2-8: Installation failure

Each component writes an installation activity report (including errors) to a common installation log file called CPQSETUP.LOG on every target server. To view the installation log file, select **Target** from the menu bar and select **View Installation Log,** or click **View target installation log** on the Target toolbar. Figure 2-9 shows a sample installation log file.

Information regarding installation activity is appended to the same log file, providing a chronological history of all component installation activity on the target server.

NOTE: The installation log file CPQSETUP.LOG is always located in the \CPQSYSTEM\LOG subdirectory on the boot partition of the target system.

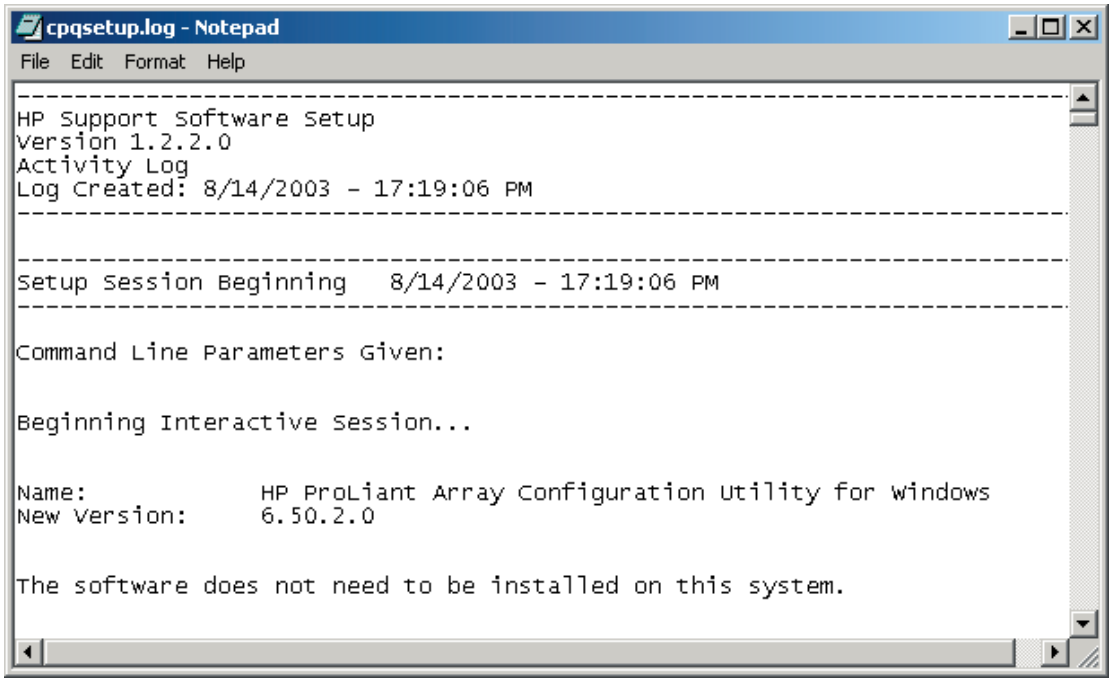

Figure 2-9: ISP installation log example

Remote Deployment Console Utility for Microsoft Windows

The Remote Deployment Console Utility for Microsoft Windows is a command line version of the RDU. The functionality of the command line-based Remote Deployment Console Utility is identical to the graphical RDU but enables unattended scripted deployment. The Remote Deployment Console Utility allows both local and single or multiple remote scripted deployments.

NOTE: The Remote Deployment Console Utility is located along with the rest of the Support Pack contents on the Integrity Software Maintenance CD and in the \Contents\Supportpack subdirectory on the Smart Setup CD. The executable file that launches the utility is SETUPC.EXE.

Some components must be configured before being deployed. Use the Remote Deployment Utility for Microsoft Windows to preconfigure components. For more information, refer to the "Component Preconfiguration" section in this chapter.

For more information about deployment using the Remote Deployment Console Utility, refer to Scenarios 2 and 3 in the "Deployment Utilities Usage Scenarios for Windows-Based Systems" section of this chapter.

All installation activity is logged by each component in the log file found at C:\CPQSYSTEM\LOG\CPQSETUP.LOG on the target system.

Command Line Syntax

The general command line syntax for the Remote Deployment Console Utility is:

```
setupc [/?] [/help] [/use-latest] [/t[arget]:computer]
[/f[orce]] [/r[eboot][:timeout]] [/reboot-always[:timeout]]
[/use-location:fileshare] [/user:username] [/passwd:password]
[/override-existing-connection] [component] [support pack]...
```

If no command line arguments are passed on the command line, the Help information appears.

NOTE: All arguments and information enclosed in brackets are optional. Refer to the "Command Line Arguments" section for a full description of the arguments the Remote Deployment Console Utility accepts.

Command Line Arguments

The following table lists the arguments recognized by the Remote Deployment Console Utility.

Table 2-4: Command Line Arguments

Command Line Argument	Description
`/help`	Displays command line Help information.
`/?`	Is identical to the `/help` argument.
`/use-latest`	Instructs SETUPC to automatically install the latest available Support Pack for the target operating system. Any additional components or Support Packs passed on the command line are ignored. "Latest available" means the latest available version for the target operating system that can be found in either the file share specified by the `/use-location` parameter or in the directory containing SETUPC.EXE.
`/t[arget]:`*`computer`*	Specifies the name of the computer to use as the target for the deployment operation.
`/f[orce]`	Changes the behavior of a component installation in one of the following ways: • If the component is already installed and current, it will reinstall itself, and the installed version number will remain the same. • If a newer version of the component is already installed, the component will install itself and downgrade the component to the older version number.
`/r[eboot][:`*`timeout`*`]`	Causes the target system to reboot if the installation requires a reboot to complete installation. A timeout in seconds can be specified. The default timeout is 15 seconds. The timeout value must be between 15 and 3600 (1 hour). The reboot will only take place if no installation errors occur.
`/reboot-always[:`*`timeout`*`]`	Causes the target system to reboot after installation, even if a reboot is not required to complete installation. A timeout in seconds can be specified. The default timeout is 15 seconds. The timeout value must be between 15 and 3600 (1 hour).

continued

Table 2-4: Command Line Arguments *continued*

Command Line Argument	Description
`/use-location:`*`fileshare`*	Instructs SETUPC to look in the specified directory or file share for the Support Pack and components. If this parameter is not specified, the directory containing SETUPC.EXE is used by default. The current logged-in account must already have access to this location. The `/user:` and `/passwd:` arguments do not have any effect when attempting to access the file share. They are only used when connecting to a target computer. Refer to the "Command Line Examples" section for a usage example.
`/user:`*`username`*	Sets the user name to use to connect to the target computer.
`/passwd:`*`password`*	Sets the password to use to connect to the target computer.
`/override-existing-connection`	Instructs SETUPC.EXE to connect to the target computer and override any existing connection that might be present. It is not recommended that this flag be used as a default. It overrides important safety checks that ensure that only one client at a time is connected to a target computer. Use this parameter only for recovery in a situation where the Remote Deployment Console Utility is reporting that a connection to a target computer is present, even if no connection exists. This situation can occur if one of the remote deployment utilities does not shut down properly.

Command Line Examples

The following table lists examples of command line input for the Remote Deployment Console Utility.

NOTE: Although lowercase letters are used in these examples, the Remote Deployment Console Utility is not case sensitive, and either uppercase or lowercase letters can be used. However, the operating system environment variable is case sensitive. For example, *%I* is not the same as *%i.*

Table 2-5: Command Line Examples

Command Line Input	Result
`setupc /target:COMPUTER1 /use-latest`	Installs the latest available version of the Support Pack that is located in the current directory and is applicable to the computer named COMPUTER1.
`setupc /target:COMPUTER1 BP000001.XML`	Installs the Support Pack defined by BP000001.XML from the current directory on the computer named COMPUTER1.
`setupc /target:COMPUTER2 BP000001.XML CP000150.EXE`	Installs the Support Pack defined by BP000001.XML and an additional component named CP000150.EXE located in the current directory on the computer named COMPUTER2.
`setupc /target:HPSYS1 /use-latest /use-location:\\SWREPOS\SupportSoftware`	Installs the latest available Support Pack from \\SWREPOS\SupportSoftware on the computer named HPSYS1.
`@echo off` `for %%I in <HPSYS1 HPSYS2 HPSYS3> do setupc /t:%%I BP000002.XML`	A Windows .CMD script that installs the Support Pack defined by BP000002.XML on the following computers: HPSYS1, HPSYS2, and HPSYS3.*

*For additional information about the syntax of the `FOR ... IN ... DO` operating system command, refer to the operating system documentation.

Installing Single Components

In some instances, you might want to install a single component manually, rather than install an entire Support Pack. To install a single component on your local system:

1. Double-click the component to be installed (cp*xxxxxx*.EXE). A screen similar to the following appears.

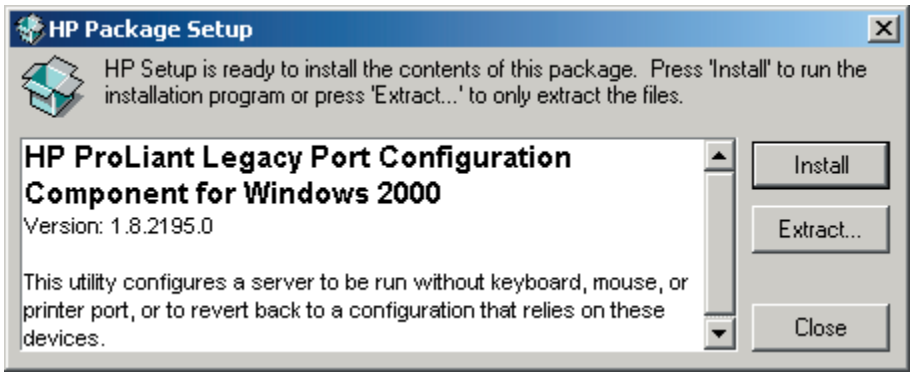

Figure 2-10: Component installation

2. Click the **Install** button. A screen similar to the following appears.

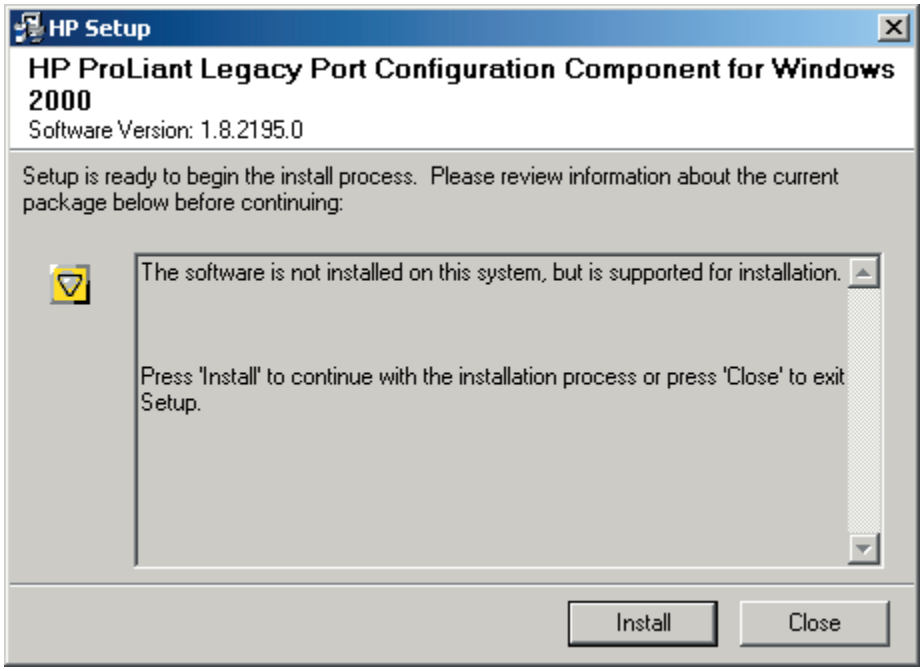

Figure 2-11: Component installation confirmation

3. Click the **Install** button, then follow the instructions on the screen to complete the installation.

Command Line Syntax

The general command line syntax for single-component installation is:

```
cpxxxxxx [/h[elp]] [/?] [/s[ilent]] [/f[orce]] [/r[eboot]]
```

CP*xxxxxx* is the file name of the Smart Component; the *X*s represent the component number.

NOTE: All arguments and information enclosed in brackets are optional. Refer to the "Command Line Arguments" section for a full description of the arguments the Smart Components accept.

If no command line arguments are passed on the command line, the component GUI appears.

Command Line Arguments

The following table lists the arguments recognized by Smart Components.

Table 2-6: Command Line Arguments

Command Line Argument	Description
/h[elp]	Displays command line Help information.
/?	Is identical to the /help argument.
/s[ilent]	Specifies whether the GUI appears. Use this argument when scripting the Smart Components to suppress the GUI. If this argument is omitted from the command line, the GUI appears.
/f[orce]	When used with the /silent command, installs the component in one of the following ways: • If the component is already installed and current, it will be reinstalled, and the installed version number will remain the same. • If a newer version of the component is already installed, the component will install itself and downgrade the originally installed component to the older version number. If this argument is omitted from the command line, the installation is not forced.
/r[eboot]	When used with the /silent command, causes the target system to reboot if the installation requires a reboot to complete the installation. If this argument is omitted from the command line, the server must be rebooted manually for the installation to take effect. The reboot will only take place if no installation errors occur.

Command Line Examples

The following table lists examples of command line input for single-component installation.

NOTE: Although lowercase letters are used in these examples, either uppercase or lowercase letters can be used.

Table 2-7: Examples of Single-Component Installations

Command Line Input	Result
`cp002575`	Starts installation of the CP002575.EXE component.
`cp002575 /s`	Installs the CP002575.EXE component on the target server, using the defaults of the component. The GUI does not appear.
`cp002575 /s /f /r`	Installs the CP002575.EXE component, forcing the component to install over an existing version and allowing the server to reboot automatically if needed. The GUI does not appear.

Return Codes

When each Smart Component has finished running, the component reports a return code to the operating system or the calling application.

These return codes are used to determine the status of the component installation. You can also use return codes in a script to control the execution of the script and determine any branching that is required. Table 2-8 summarizes the Smart Component return codes.

Table 2-8: Return Codes

Error Level	Meaning
0	The Smart Component failed to install. Refer to the log file for more details.
1	The Smart Component installed successfully.
2	The Smart Component installed successfully, but the system must be restarted.
3	The installation was not attempted because the required hardware was not present or the software was current.

Deployment Utilities Usage Scenarios for Windows-Based Systems

This section discusses deployment scenarios for ISPs and components stored in a centralized, network-based software repository.

All of the ISP deployment examples described in this guide assume a centralized, network-based software repository. The same deployment principles are applicable to ISP software that is stored locally on the administrative system, target system, Smart Setup CD, or Software Maintenance CD.

TIP: To facilitate the use of the ISP deployment utilities, copy the executable and Help files of the utilities to the hard drive of the administrative system. Place the executable and Help files in their own subdirectory.

The overall ISP and component deployment strategy for Windows-based systems is illustrated in Figure 2-12.

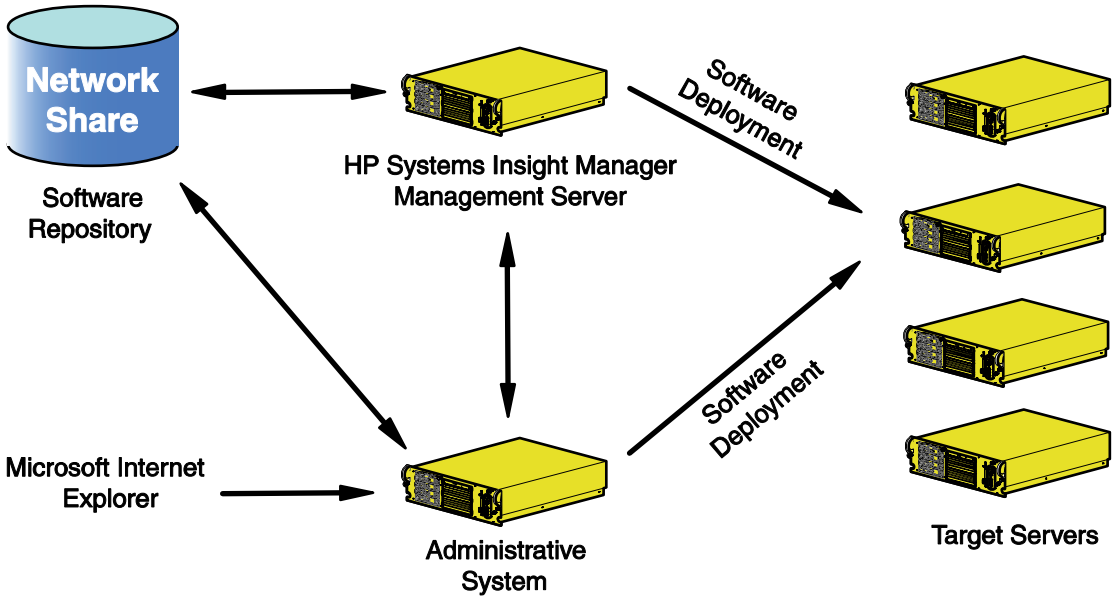

Figure 2-12: Deployment strategy on Windows-based systems

Table 2-9 summarizes the deployment scenarios on Windows-based systems and the utilities to use in each scenario.

Table 2-9: Deployment Scenarios on Windows-Based Systems

Scenario	Type of Deployment	Deployment Utility Used
1	• User is not familiar with operating system command line tools or does not need to deploy from a command line. • User must deploy on a single local or remote target system. • User does not need scripting capabilities.	Remote Deployment Utility (SETUP.EXE)
2	• User is familiar with operating system command line tools. • User must deploy on a single local or remote target system. • User needs scripting capabilities.	Remote Deployment Console Utility (SETUPC.EXE)
3	• User is familiar with operating system command line tools. • User must deploy on a few remote target systems. • User needs scripting capabilities.	Remote Deployment Console Utility (SETUPC.EXE)
4	• User is an expert with operating system tools, including command line scripting. • User is knowledgeable about HP Systems Insight Manager. • User must deploy on a multitude of remote target systems, all managed by HP Systems Insight Manager.	Remote Deployment Console Utility with HP Systems Insight Manager*

IMPORTANT: When using HP Systems Insight Manager in conjunction with the ISP deployment utilities, HP recommends deploying to no more than 100 remote target systems with any given Application Launch task.

*For information on using HP Systems Insight Manager with the Version Control Repository Manager and the Version Control Agent, refer to the *HP Systems Insight Manager Help Guide* at: http://h18013.www1.hp.com/products/servers/management/hpsim/infolibrary.html.

Scenario 1: Graphical Deployment on a Single-Target System Using the RDU

IMPORTANT: Be sure that all components that require configuration are configured before deploying them.

Both the RDU and the Remote Deployment Console Utility can be used to maintain and deploy ISPs and individual components on a local or remote target system. However, the graphical RDU is the easiest utility to use when deploying on a single-target system.

Figure 2-13 illustrates the basic single-target system deployment process with the RDU.

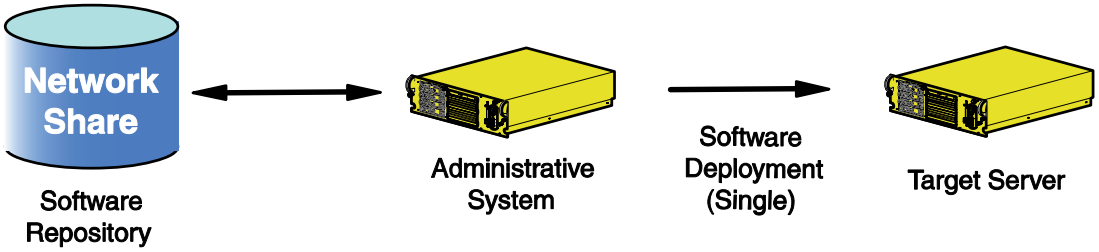

Figure 2-13: Single-target deployment process

When to Use This Scenario

Use the ISP deployment scenario described in this section when you:

- Are not familiar with operating system command line tools or do not need to deploy from a command line
- Are deploying ISPs or individual components on a single-target system that is either local or remote
- Do not have a need for scripting

Deploying an ISP

To deploy an ISP stored in a centralized, network-based software repository using the graphical RDU:

1. Be sure that all requirements are fulfilled as listed in the section "Minimum Requirements for Windows Servers."
2. Be sure that the centralized, network-based software repository can be accessed by the administrative system.
3. Launch the RDU on the administrative system. It does not matter where the utility resides on the host system. However, HP recommends placing the utility in its own subdirectory.

   If no ISPs or components are in the same directory as the RDU or if no applicable Support Packs are found, a blank screen similar to Figure 2-14 appears when the utility opens.

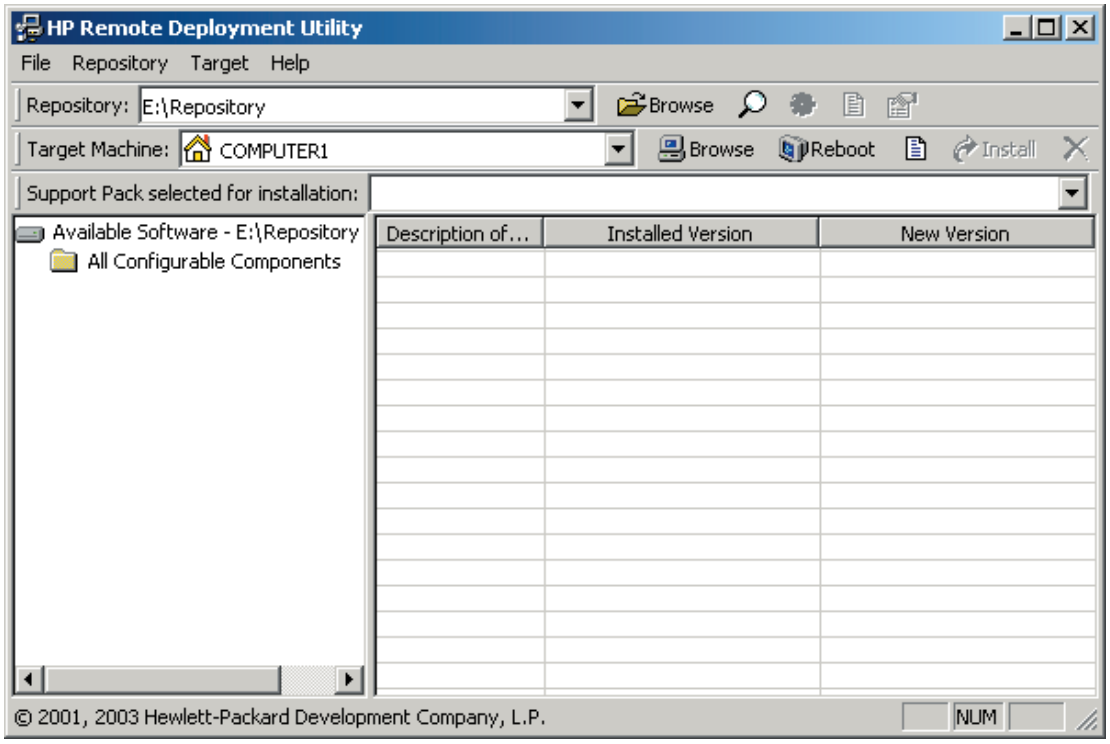

Figure 2-14: Blank RDU main window

4. Click **Browse** on the Repository toolbar to navigate to the location of the centralized, network-based software repository.
5. Configure components by right-clicking a component in the repository view tree and selecting **Configure.** Icons next to each component indicate whether the icon must be configured. Refer to Table 2-3 for descriptions of the icons.

6. Select components to be installed:

   — To install all components in the applicable Support Pack, select a Support Pack from the Support Pack Selected for Installation toolbar. All the components in the Support Pack appear in the target computer list, as shown in Figure 2-15.

   IMPORTANT: To install an ISP, all files that comprise the ISP must be present in the same directory.

   — To select individual components or categories, drag selected files or folders from the repository view tree and drop them in the target computer list. You can also select a file or folder in the repository view tree, and then press the **Insert** key to move the file or folder to the target computer list.

   — To remove any components that you do not want to install, select them in the target computer list and press the **Delete** key or click the **Remove selected items chosen for installation** button (✕) on the Target Machine toolbar.

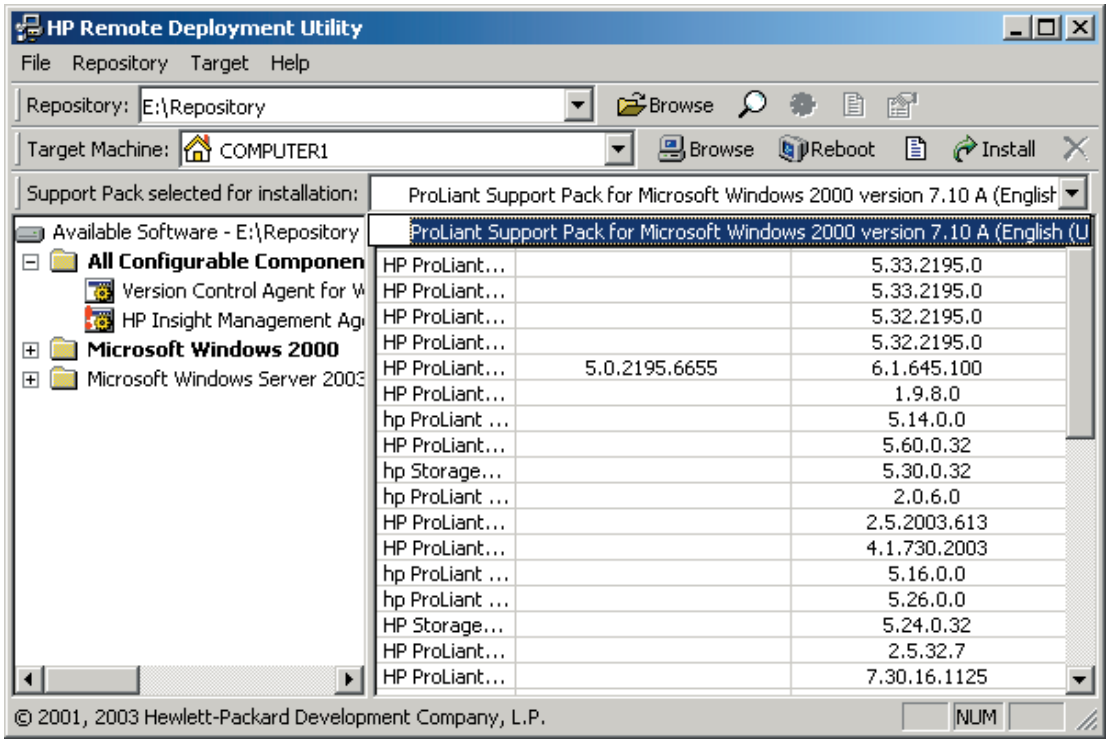

Figure 2-15: Selecting an ISP to be deployed from the dropdown menu

If error text appears under a Support Pack in the repository view tree (refer to Figure 2-16 for an example), a component referenced in the Support Pack is not available in the software repository.

To correct the situation, obtain the missing component from the HP website, Smart Setup CD, or Software Maintenance CD and copy it to the software repository.

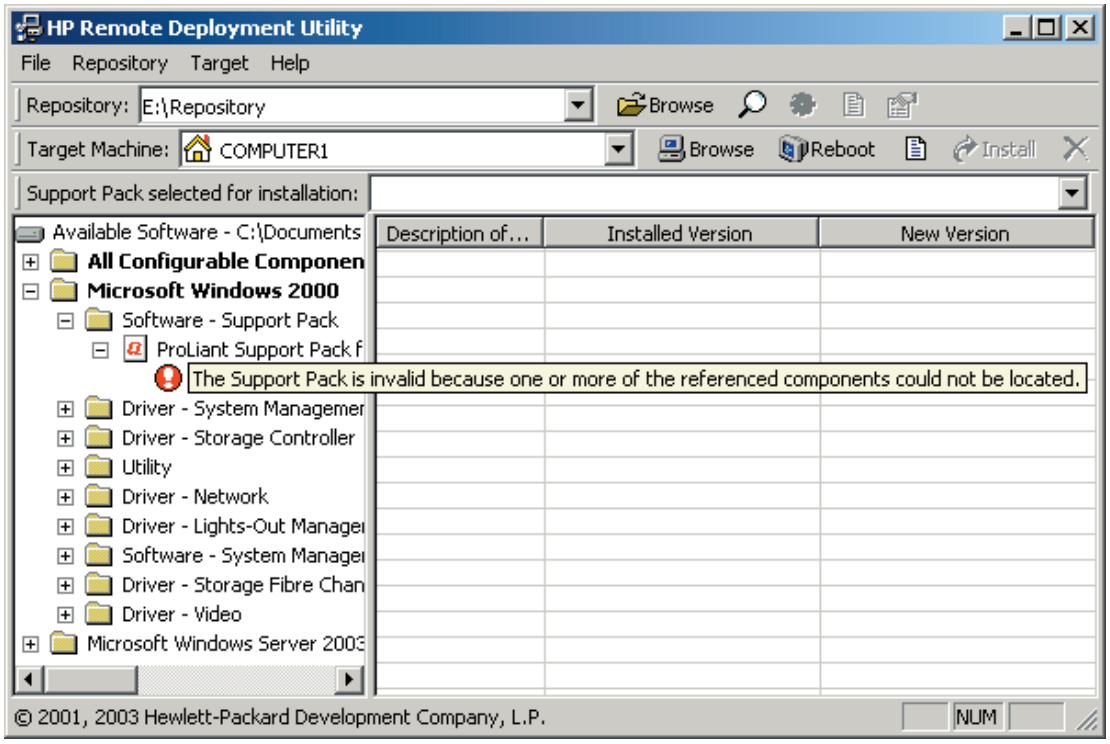

Figure 2-16: Component missing from the ISP

7. Select the target machine. By default, the RDU selects the system that launches the utility as the target system.

   If the target system is the local administrative system, there is no need to modify the Target Machine field. However, if the target system is a remote system accessible over the network, enter or browse to the name of the network target system in the Target Machine field and press the **Enter** key to connect to the target. You can also click **Target,** and use the Browse for Computer window to navigate to the system accessible over the network connection. Click **OK** to select the target and return to the RDU main window.

   NOTE: To assist with entry of the target system name, the RDU maintains a history of servers on which software has been deployed. Access this history from the Target Machine list.

   If the user name and password for the target machine do not match those for the machine running the RDU, you are prompted to enter the user name and password for the target machine.

8. Deploy all components displayed in the target computer list by clicking **Install** after the RDU identifies the target system. A progress window tracks the progress of the deployment.
9. Click **Cancel** at any time to stop deployment. There might be a slight delay before the installation is canceled while the RDU finishes the last initiated task.

   IMPORTANT: Clicking **Cancel** does not cancel the entire installation procedure and restore the target system to its previous driver versions. Instead, clicking **Cancel** stops the installation of the ISP at the point when **Cancel** is clicked, and the target server might end up with a partially installed ISP.

10. View the installation results. When the deployment process is complete, after deploying the ISP on the target server, the RDU displays an installation confirmation screen.

    If one or more components are not installed successfully, a screen similar to the following appears.

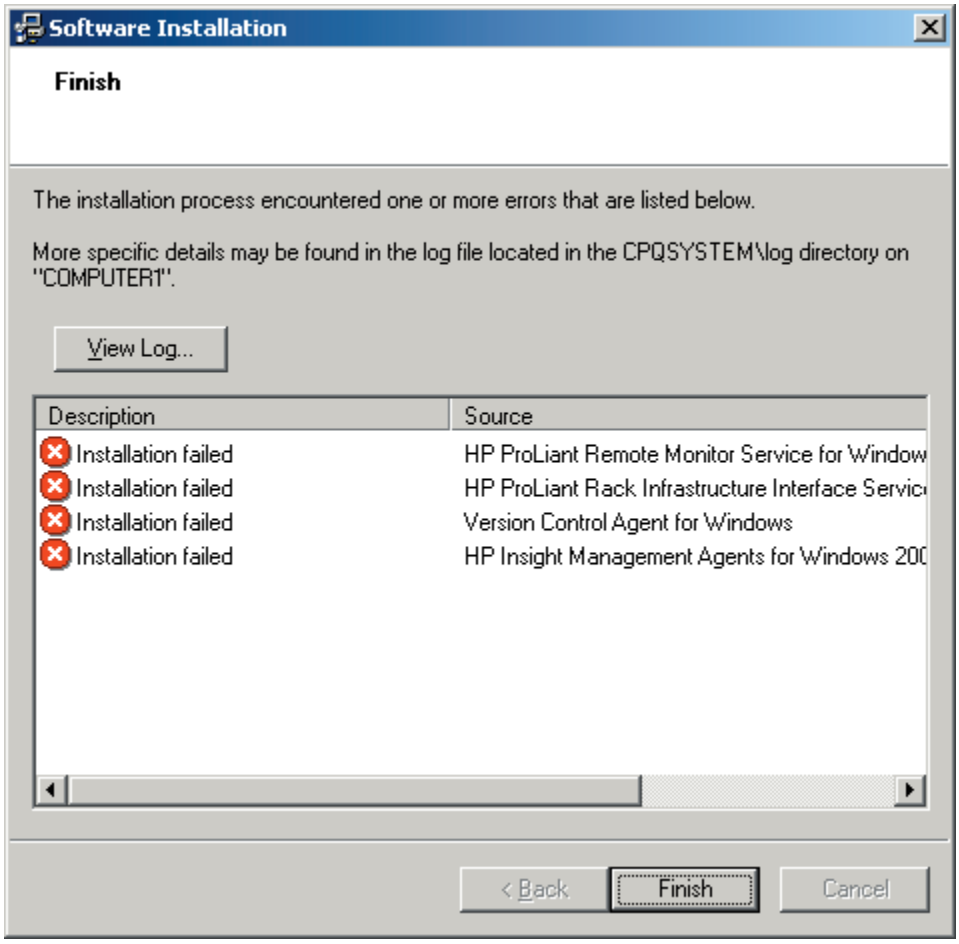

Figure 2-17: Installation failure

Each component writes installation activity (including errors) to a common installation log file called CPQSETUP.LOG on every target server. To view the installation log file, select **Target** from the menu bar and select **View Installation Log,** or click **View target installation log** on the Target toolbar.

11. If necessary, reboot the target server to complete the installation by clicking **Reboot** and confirming when prompted by the system. The deployment is complete.

    NOTE: If the target system is the local administrative system, clicking **Reboot** causes the system to reboot, and the RDU must be restarted to deploy components or ISPs on another target system.

12. Close the Installation Results window to deploy components or ISPs on another target server.

Scenario 2: Command Line Deployment on a Single-Target System Using the Remote Deployment Console Utility

IMPORTANT: Be sure that all components that require configuration are configured before deploying them.

Figure 2-18 illustrates the basic, single-target system deployment process with the Remote Deployment Console Utility.

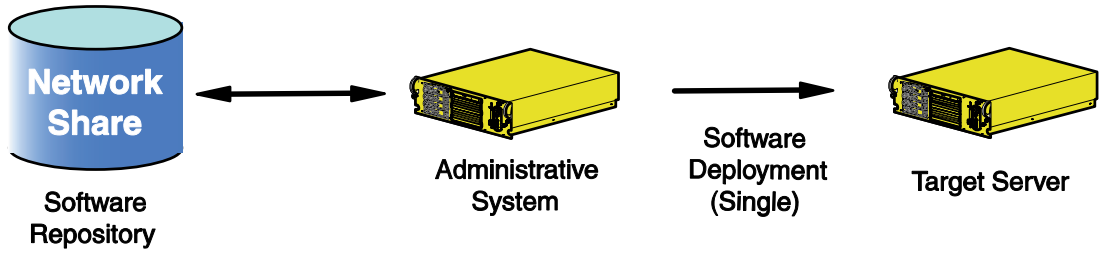

Figure 2-18: Single-target deployment process

When to Use This Scenario

Use the ISP deployment scenario described in this section when you:

- Are familiar with operating system command line tools
- Require deployment of ISPs or individual components on a single-target system that is either local or remote
- Have a need for scripting

Deploying an ISP

To deploy an ISP stored in a centralized, network-based software repository from a command line prompt on a single-target system:

1. Be sure that all requirements are fulfilled as listed in the section "Minimum Requirements for Windows Servers."
2. Be sure that the software repository can be accessed by the administrative system.
3. Map a drive letter to the network-based software repository that contains the ISP files.
4. Preconfigure components using the RDU (SETUP.EXE). For more information, refer to the "Component Preconfiguration" section in this chapter.
5. Launch a command line prompt on the administrative system, and change to the subdirectory containing the Remote Deployment Console Utility.
6. Launch the Remote Deployment Console Utility. For more information, refer to "Command Line Examples" in the "Remote Deployment Console Utility for Microsoft Windows" section in this chapter.

   NOTE: Command line help for the utility is accessible by running the file SETUPC.EXE from the command line. A screen displays all possible parameters that the utility accepts.

7. Deploy the specified ISP file on the target system by pressing the **Enter** key.

When the utility deploys an ISP or individual components to the target system, each component writes installation information to the file CPQSETUP.LOG on the target system.

Be sure that the target system is accessible over the network connection and that all files that make up an ISP are present in the same directory. If the target system is not accessible over the network connection, one of the following error messages might appear:

- Unable to connect to the target computer. All available connection methods were attempted with no success. A possible reason is that the operating system of the target computer is not supported.
- Access to the target computer was denied, possibly due to incorrect authentication information or permissions.
- The target computer could not be found. Please check the spelling of the computer name or the network connection and try again.

If installation errors occur, the command line window might display an error message followed by a list of components and the errors that occurred.

IMPORTANT: You can stop a command line deployment on a local server at any time by pressing the **Ctrl+C** keys.

When the deployment process ends, control is returned to the command line prompt to run the Remote Deployment Console Utility on the next target server that must be deployed.

TIP: You can view the centralized installation log file on the remote target system by connecting to the remote target system over the network with Windows Explorer and opening the CPQSETUP.LOG file. You can also view the file in a command prompt window on the administrative system by using the TYPE or MORE commands, followed by the network path and name of the remote installation log file.

Scenario 3: Command Line Deployment on Multiple-Target Systems Using the Remote Deployment Console Utility

IMPORTANT: Be sure that all components requiring configuration are configured before deploying them.

Figure 2-19 illustrates the basic, multiple-target system deployment process with the Remote Deployment Console Utility.

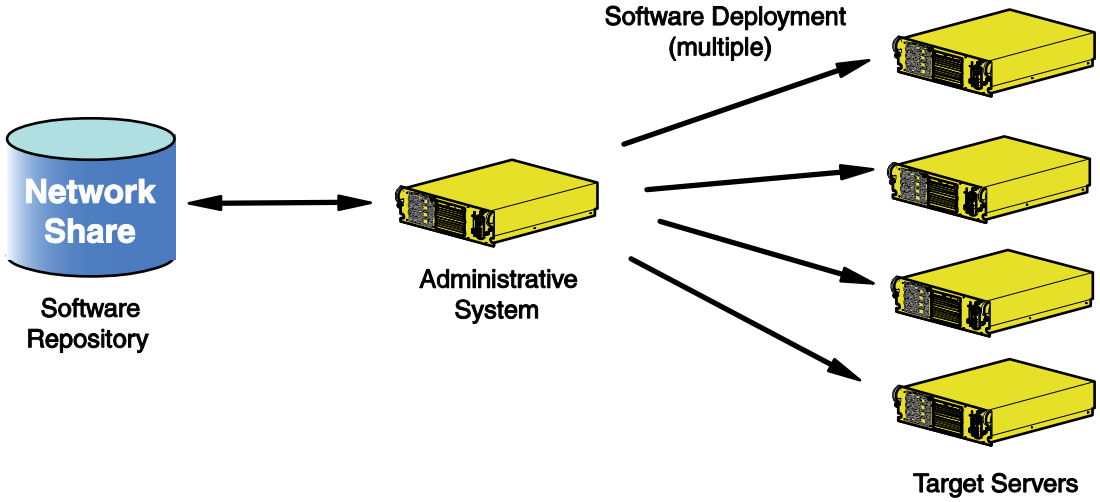

Figure 2-19: Multiple-target deployment process

When to Use This Scenario

Use the ISP deployment scenario described in this section when you:

- Are familiar with operating system command line tools
- Require deployment of ISPs or individual components on a few remote target systems
- Have a need for scripting

Deploying an ISP

Deploying software on multiple-target systems with the Remote Deployment Console Utility follows the same basic procedures outlined in the section "Scenario 2: Deploying Software on a Single-Target System with the Remote Deployment Console Utility."

IMPORTANT: If multiple-target server deployment requirements are for very high volumes, refer to the section "Scenario 4: Deploying Software on Multiple-Target Systems Managed by HP Systems Insight Manager." Using the Remote Deployment Console Utility from the command line to deploy to multiple-target servers is recommended only for a few target servers.

To deploy an ISP stored in a centralized, network-based software repository from a command line prompt on multiple-target servers:

1. Follow steps 1 through 5 in the section "Scenario 2: Deploying Software on a Single-Target System with the Remote Deployment Console Utility."
2. Launch the Remote Deployment Console Utility, using command line parameters to specify each of the target systems. For more information, refer to "Command Line Examples" in the "Remote Deployment Console Utility for Microsoft Windows" section in this chapter.

   IMPORTANT: The target systems must be accessible over the network connection, and the account that is running the Remote Deployment Console Utility must have administrative access to the target system.

   NOTE: Command line help for the utility is accessible by running the file SETUPC.EXE from the command line. A screen displays all possible parameters that the utility will accept.

3. Complete the deployment. Refer to step 7 in the section, "Scenario 2: Deploying Software on a Single-Target System with the Remote Deployment Console Utility," for the remainder of the deployment process and any error messages that might appear.

   TIP: Although each component that is run will write installation information to the installation log file CPQSETUP.LOG on the target system, you can redirect screen output to text files that are local to the administrative system. This capability provides convenient local access to multiple-target server deployment information from one location. Refer to the operating system documentation for more information about output redirection.

Scenario 4: Command Line Deployment on Multiple-Target Systems Managed by HP Systems Insight Manager

IMPORTANT: Be sure that all components that require configuration are configured before deploying them.

For initial ISP deployment on multiple-target systems managed by HP Systems Insight Manager, use the Remote Deployment Console Utility. As in the previous scenarios, HP recommends that all deployments be performed from a centralized, network-based software repository.

After initial ISP deployment, HP recommends that you use the software deployment support in HP Systems Insight Manager.

Figure 2-20 illustrates the basic, multiple-target system deployment process with HP Systems Insight Manager and the Remote Deployment Console Utility.

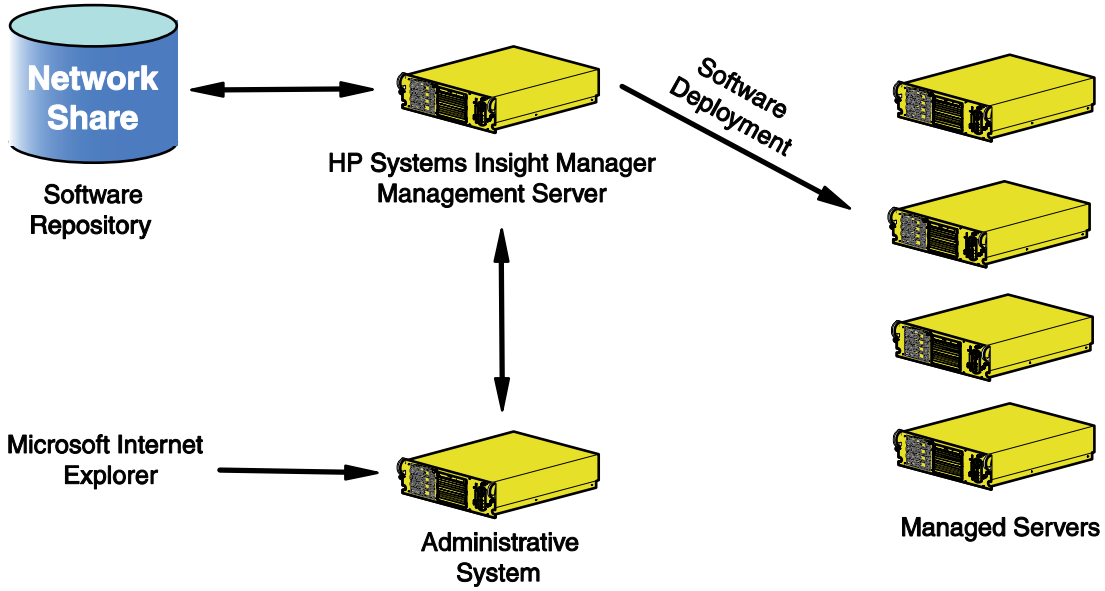

Figure 2-20: Multiple-target deployment process with HP Systems Insight Manager

When to Use This Scenario

Use the ISP deployment scenario described in this section when you are:

- Knowledgeable about operating system tools, including command line scripting
- Knowledgeable about HP Systems Insight Manager
- Deploying ISPs or individual components on many remote target systems that are all managed by HP Systems Insight Manager

Deploying an ISP

For information on using HP Systems Insight Manager with the Version Control Repository Manager and the Version Control Agent, refer to the

- The *HP Systems Insight Manager Help Guide* at:
  http://h18013.www1.hp.com/products/servers/management/hpsim/infolibrary.html

IMPORTANT: When using HP Systems Insight Manager in conjunction with the ISP deployment utilities, HP recommends deploying to no more than 100 remote target systems with any given Application Launch task.

For detailed information about using HP Systems Insight Manager, refer to the *HP Systems Insight Manager Installation and User Guide* available on the Management CD, in every HP Systems Insight Manager download from the Web, or at:
http://h18013.www1.hp.com/products/servers/management/hpsim/infolibrary.html.

Alternatively, click **Help** from within HP Systems Insight Manager.

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